CLAIMS

What is claimed is:

1. A method of manufacturing a culture medium on which plants can be grown comprising the steps of:

providing a particulate base material;

providing a thermoplastic, biologically degradable binding agent;

mixing the base material with the binding agent to form a mixture;

heating at least the binding agent to at least partly fluidize it; and

cooling the mixture to substantially solidify the binding agent so that it binds at least a part of the base material.

2. The method of claim 1 wherein the base material comprises an organic material.

3. The method of claim 1 wherein the base material comprises an inorganic material.

4. The method of claim 3 wherein the base material further comprises an organic material.

5. The method of claim 1 wherein the binding agent in the mixture is no more than approximately 25% by weight.

6. The method of claim 5 wherein the binding agent in the mixture is no more than approximately 15% by weight.

7. The method of claim 6 wherein the binding agent in the mixture is no more than approximately 10% by weight.

8. The method of claim 7 wherein the binding agent in the mixture is no more than 7% by weight.

9. The method of claim 8 wherein the binding agent in the mixture is no more than 5% by weight.

10. The method of claim 9 wherein the binding agent in the mixture is no more than 4% by weight.

11. The method of claim 1 further comprising the step of performing a shaping treatment on the mixture after the step of making the mixture.

12. The method of claim 1 wherein the base material comprises at least one material selected from the group consisting of peat, compost, coconut fibers, coconut granulate, hemp fibers, straw, grass, sawdust, coffee grounds, organic waste, residue from the animal feed industry, and residue from the paper industry.

13. The method of claim 1 wherein the base material comprises at least one material selected from the group consisting of clay, soil, perlite, rock wool and other inert inorganic materials.

14. The method of claim 1 wherein the base material is no more than approximately 10mm in size.

15. The method of claim 14 wherein the base material is no more than approximately 5mm in size.

16. The method of claim 15 wherein the base material is no more than approximately 2mm in size.

17. The method of claim 16 wherein the base material is no more than approximately 1mm in size.

18. The method of claim 17 wherein the step of mixing the base material and the binding agent further comprises the step of adding a biologically degradable elastomer.

19. The method of claim 1 further comprising the steps of:

disposing a layer of base material between two layers of the mixture; and

joining two opposing ends of one layer of the mixture to the opposite ends of the other layer of the mixture so that the layers of the mixture surround the layer of base material;

the disposing and folding steps performed just prior to heating.

20. The method of claim 1 further comprising the steps of:

disposing a layer of base material on a layer of the mixture; and

folding the mixture layer over the base material layer so that the mixture layer completely surrounds the base material layer;

the disposing and folding steps performed just prior to heating.

21. The method of claim 1 wherein the step of cooling the mixture comprises providing a supply of a cooling substance.

22. The method of claim 21 wherein the step of providing a supply of a cooling substance comprises providing a supply of a gas.

23. The method of claim 21 wherein the step of providing a supply of a cooling substance comprises providing a supply of a liquid.

24. The method of claim 21 wherein the step of providing a supply of a cooling substance is performed by force.

25. The method of claim 21 wherein the step of providing a supply of a cooling substance is performed naturally, without force.

26. The method of claim 21 wherein the step of providing a supply of a cooling substance is performed passively, without force.

27. The method of claim 11 wherein the mixture is shaped into form selected from the group consisting of a culture mat, culture plug, culture block, and combination thereof.

28. The method of claim 11 wherein the step of performing the shaping treatment the step of compressing the mixture to not more than 99% of the mixture's original volume.

29. The method of claim 28 wherein the mixture is compressed to not more than approximately 95% of the mixture's original volume.

30. The method of claim 29 wherein the mixture is compressed to not more than approximately 90% of the mixture's original volume.

31. The method of claim 30 wherein the mixture is compressed to not more than approximately 80% of the mixture's original volume.

32. The method of claim 1 wherein the step of providing the binding agent comprises providing a binding agent with a melting point of from between approximately 20°C and 130°C.

33. The method of claim 32 wherein the step of providing the binding agent comprises providing a binding agent with a melting point of from between approximately 40°C and 120°C.

34. The method of claim 33 wherein the step of providing the binding agent comprises providing a binding agent with a melting point of from between approximately 60°C and 100°C.

35. The method of claim 1 wherein the step of heating comprises applying steam.

36. A composition comprising a culture medium for growing plants, wherein said culture medium comprises a particulate base material of no more than approximately 10 mm in size and a thermoplastic, biologically degradable binding agent in an amount of no more than 25% by weight.

37. The composition of claim 36 wherein the base material comprises an organic material.

38. The composition of claim 37 wherein the base material comprises an inorganic material.

39. The composition of claim 38 wherein the base material comprises an inorganic material.

39. The composition of claim 36 wherein the base material comprises at least one material selected from the group consisting of peat, compost, coconut fibers, coconut granulate, hemp fibers, straw, grass, sawdust, coffee grounds, organic waste, residue from the animal feed industry, and residue from the paper industry.

40. The composition of claim 36 wherein the base material comprises at least one material selected from the group consisting of clay, soil, perlite, rock wool, and other inert inorganic materials.

41. The composition of claim 36 wherein said culture medium at least partially envelopes a core of base material.